

# Notice of Allowability

Application No.

09/903,028

Examiner

Dennis Rosario

Applicant(s)

JAYANT ET AL.

Art Unit

2624

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to After Final 9/6/2006.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 3/7/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
**DANIEL MIRIAM**  
**PRIMARY EXAMINER**

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Charley Brown, Reg. No. 52,658, on 9/13/2006.

The application has been amended as follows:

Claim 1, between lines 9 and 10 insert:

--determining whether the adjacent image portion is a non-edge portion;--.

Claim 1, line 10 after "true edge portion" insert:

--, the true edge portion having an intensity slope--

In claim 1, at lines 11-13 delete the limitation "enhancing the true edge portion by associating the subject image portion with a third image intensity, wherein the third image intensity is less than the first image intensity, thereby sharpening the true edge"

and replace with:

--enhancing the true edge portion by increasing the difference between the true edge portion and the non-edge portion by increasing the intensity slope for the true edge, wherein the third image intensity is less than the first image intensity, thereby sharpening the true edge portion--

Claim 12, line 2 delete "operative" and replace with:

--configured--

Claim 12, line 4 delete "operative" and replace with:

--configured--

In claim 12, at lines 6 and 7 delete the limitation "an edge enhancer operative to detect an edge in the processed image to enhance the edge in the processed image" and replace with:

--an edge enhancer configured to detect a candidate edge and a non-edge in the processed image, determine if the candidate edge is a true edge or a non-edge, the true edge portion having an intensity slope, and to sharpen the true edge in the processed image by increasing the intensity slope for the true edge wherein the difference between the true edge and the non-edge is increased, thereby sharpening the true edge--

Claim 18, between lines 13 and 14 insert:

--classifying a fourth pixel as a non-edge pixel;--

Claim 18, line 14 after "true edge pixel" insert:

--,the true edge pixel having an intensity slope,--

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In claim 18 at lines 17-19 delete the limitation "enhancing the true edge pixel by associating a fourth image intensity with the true edge pixel, the fourth image intensity being lower than the first image intensity, thereby sharpening the true edge pixel"

and replace with:

--enhancing the true edge pixel by increasing the intensity slope for the true edge wherein the difference between the true edge pixel and the non-edge pixel is increased, thereby sharpening the true edge pixel--

In claim 21 at line 2 delete the limitation "receiving an encoded digitized image an encoded digitized image;"

and replace with:

--receiving an encoded digitized image;--

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In claim 21 at line 5 delete the limitation "detecting an edge in the processed image to enhance the edge in the processed image"

and replace with:

--detecting a non-edge in the processed image;

detecting a candidate edge in the processed image;

determining if the candidate edge is a true edge or a non-edge, wherein the true edge has an intensity slope;

enhancing the true edge in the processed image by increasing the intensity slope for the true edge wherein the difference between the true edge and the non-edge is increased, thereby sharpening the true edge--

***Response to Amendment***

2. The after final amendment was received on 9/6/2006. Claims 1-26 are pending.

***Response to Arguments***

3. Applicant's arguments with respect to claim 1, 12, 18 and 21 have been considered but are moot due to allowable subject matter.

***Allowable Subject Matter***

4. Claims 1-26 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Claim 12 is allowable because the prior art does not teach the limitation within the environment of claim 12 of:

a true edge portion having an intensity slope, and to sharpen the true edge in the processed image by increasing the intensity slope for the true edge wherein the difference between the true edge and a non-edge is increased, thereby sharpening the true edge.

The closest prior art, Hamilton, Jr. et al. (US Patent 6,259,822 B1) does teach increasing differences to sharpen an edge as mentioned in col. 3, lines 23-25. However, Hamilton et al. does not disclose or suggest the claimed intensity slope.

The benefit of claim 12 enhances edges.

Claims 1, 18 and 21 are allowable for the same reasons as claim 12. Hence respective dependent claims are allowable for depending on respective allowable parent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DR  
Dennis Rosario  
Unit 2624

  
DANIEL MIRIAM  
PRIMARY EXAMINER